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UTILITY PATENT APPLICATION TRANSMITTAL
(Only for new nonprovisional applications under 37 CFR 1.53(b))

Socket No. : 40059/RRT/S787
Inventor(s) : Marcy Casement, Andrew Burgess, and David Folker
Title : TELEVISION SCHEDULE SYSTEM WITH ACCESS CONTROL
Express Mail Label No. : EL521382989US

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JCS75 U.S. PTO
09/635079

ADDRESS TO: Assistant Commissioner for Patents
Box Patent Application
Washington, D.C. 20231

Date: August 8, 2000

1. ☒ **FEE TRANSMITTAL FORM** (Submit an original, and a duplicate for fee processing).

2. **IF A CONTINUING APPLICATION**

☒ This application is a continuation of patent application No. 09/343,311.

Prior application information: Examiner A. Rao; Group Art Unit: 2713

☐ This application claims priority pursuant to 35 U.S.C. §119(e) and 37 CFR §1.78(a)(4), to provisional Application No. .

3. **APPLICATION COMPRISED OF**

Specification

20 Specification, claims and Abstract (total pages)

Drawings

12 Sheets of drawing(s) (FIGS. 1 to 10)

Declaration and Power of Attorney

☐ Newly executed

☐ Unexecuted declaration

☒ Copy from a prior application (37 CFR 1.63(d))(for continuation and divisional)

4. ☐ **Microfiche Computer Program** (Appendix)

5. ☐ **Nucleotide and/or Amino Acid Sequence Submission** (if applicable, all necessary)

☐ Computer Readable Copy

☐ Paper Copy (identical to computer copy)

☐ Statement verifying identity of above copies

6. **ALSO ENCLOSED ARE**

☒ Preliminary Amendment

☐ A Petition for Extension of Time for the parent application and the required fee are enclosed as separate papers

☐ Small Entity Statement(s)

☐ Statement filed in parent application, status still proper and desired

☐ Copy of Statement filed in provisional application, status still proper and desired

UTILITY PATENT APPLICATION TRANSMITTAL
(Only for new nonprovisional applications under 37 CFR 1.53(b))

Docket No.: 40059/RRT/S787

- ☐ An Assignment of the invention with the Recordation Cover Sheet and the recordation fee are enclosed as separate papers
- ☒ This application is owned by Starsight Telecast, Incorporated pursuant to an Assignment recorded at Reel 8110, Frame 0831
- ☐ Information Disclosure Statement (IDS)/PTO-1449
- ☐ Copies of IDS Citations
- ☐ Certified copy of Priority Document(s) (*if foreign priority is claimed*)
- ☐ English Translation Document (*if applicable*)
- ☒ Return Receipt Postcard (MPEP 503) (should be specifically itemized).
- ☒ Other Substitution of Attorney and Change of Address


7. CORRESPONDENCE ADDRESS

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Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By


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Reg. No. 43,945
626/795-9900

RRT/cmr

**FEE TRANSMITTAL
UTILITY PATENT APPLICATION**

DATE: August 8, 2000

Docket No. : 40059/RR/T/S787

Inventor(s) : Marcy Casement, Andrew Burgess, and David Folker

Title : TELEVISION SCHEDULE SYSTEM WITH ACCESS CONTROL

FEE CALCULATIONS					
CLAIMS		NUMBER FILED	NUMBER EXTRA	RATE	CALCULATIONS
A	TOTAL CLAIMS	26 - 20 =	6	6 x \$9.00	\$54
B	INDEPENDENT CLAIMS	3 - 3 =		x \$39.00	\$
C	SUBTOTAL	SMALL ENTITY FEE = A + B LARGE ENTITY FEE = 2 X (A + B)			108
D	BASIC FEE	SMALL ENTITY FEE = \$345.00 LARGE ENTITY FEE = \$690.00			690
E	MULTIPLE-DEPENDENT CLAIMS FEE	SMALL ENTITY FEE = \$130.00 LARGE ENTITY FEE = \$260.00			
F	TOTAL FILING FEE (ADD LINES C, D, AND E)				798
List Independent Claims: 1, 12 and 21					

METHOD OF PAYMENT


☒ Payment Enclosed: Check for \$798

☒ The Commissioner is hereby authorized to charge any fees under 37 CFR 1.16 and 1.17 which may be required during the **entire pendency** of the application to Deposit Account No. 03-1728. Please show our docket number with any charge or credit to our Deposit Account. **A duplicate copy of this sheet is enclosed.**

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By


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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

This paper is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" under 37 CFR § 1.10 Mailing Label No. EL521382989US.

Applicant : Marcy Casement, et al.
 Application No. : To be assigned
 Filed : Herewith
 Title : TELEVISION SCHEDULE SYSTEM
 WITH ACCESS CONTROL
 Grp./Div. : To be assigned
 Examiner : To be assigned
 Docket No. : 40059/RRT/S787

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
 Washington, D.C. 20231

Post Office Box 7068
 Pasadena, CA 91109-7068
 August 3, 2000

Commissioner:

Please amend the above-identified patent application as follows:

In the Specification:

Page 1, line 5, before "BACKGROUND OF THE INVENTION" insert:
 -- CROSS REFERENCE TO RELATED APPLICATION

This application is a continuation of Application No. 09/343,311, filed June 30, 1999, which is a continuation of 08/654,997, filed on May 29, 1996 now issued as U.S. Pat. No. 5,969,748. --

Respectfully submitted,
 CHRISTIE, PARKER & HALE, LLP

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RRT/dsz

CNR PAS265835.1--8/8/00 11:34 AM

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TELEVISION SCHEDULE SYSTEM WITH ACCESS CONTROL

BACKGROUND OF THE INVENTION

The present invention relates to a system for providing television schedule information, and more particularly to a television schedule information guide with capability for controlling access to television programs.

Systems are available for providing television schedule information to a user. For example, U.S. Patent No. B1 4,706,121 (Young), provides a television schedule system and process. In one embodiment of Young, the television schedule information is provided on the user's television screen. The user may supply selection criteria which are utilized by the Young system to make program selections, and the like. In addition, Young discloses a system which controls a television receiver to allow for automatic selection of programs and the automatic, unattended recording of programs that are listed in the television schedule information guide. The automatic, unattended recording of programs is achieved by controlling a videotape recorder (VCR) or other recording device.

SUMMARY OF THE INVENTION

The present invention is directed to a television schedule system with a user interface that allows a user to control access to television programs by time, rating, content, and/or channel. Furthermore, the user may set a limit on pay-per-view (PPV) spending to limit the purchase of PPV programs.

In a preferred embodiment, the television schedule system has a main menu. A user may select the "Parental Control" (parental control) menu from the main menu to enter the parental password. The parental password may be established from the main menu. After establishing and entering the parental password, the user may lock-out programs by channel, by rating, content, and/or by time from the parental control menu. The content description of the show may further have a corresponding "V-chip" classification based on V-chip rating data supplied by the FCC. Hence, the user may further lock out programs by V-chip

classification. In order to tune to a locked program, the parental password is preferably supplied.

In one embodiment, the user may select a "control viewing" menu from the main menu to enter a purchase password. The purchase password may also be established from the main menu. After establishing and entering the purchase password, the user may specify a PPV spending limit thereby limiting the purchase of PPV programs. The user may further specify the type of PPV programs allowed based on rating and content. In order to purchase beyond the spending limit, the purchase password is preferably supplied. In order to purchase restricted programs, both the parental and purchase passwords are preferably supplied.

If the user does not remember a password, the user may, for example, call the cable operator. The cable operator may set the password to null so the user may establish a new password.

Other features and advantages of the present invention will become apparent to those skilled in the art upon a perusal of the remaining portions of the specification and drawings. In the drawings, like reference numerals indicate identical or functionally similar elements.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 illustrates a preferred embodiment of a television system according to the present invention;

Fig. 2A shows a preferred embodiment of a pop-up menu shown to a user if a password has not been established, and the user selects parental control from the main menu of a television schedule guide;

Fig. 2B shows a preferred embodiment of a parental control menu shown to a user after a parental password has been established and entered;

Fig. 2C shows a preferred embodiment of a pop-up shown when the user selects a "lock by channel" feature;

Fig. 2D shows a preferred embodiment of a pop-up shown when the user selects a "lock by rating and content" feature;

Fig. 2E shows a preferred embodiment of a pop-up shown when the user selects a "lock by time" feature;

Fig. 2F shows a preferred embodiment of a pop-up shown to a user if a purchase password has not been established, and the user selects a "Set IPPV Spending limits" feature from the control viewing menu;

5 Fig. 2G shows a preferred embodiment of a pop-up shown to a user if a purchase password has been established, and the user selects the "Set IPPV Spending limits" feature from the control viewing menu;

Fig. 2H shows a preferred embodiment of a IPPV spending limit pop-up shown to a user after a proper purchase password has been established and entered;

10 Fig. 3 is a process flow chart for determining whether a user could tune to a program;

Fig. 4 is a process flow chart for the operation of the parental control feature;

Fig. 5 is a process flow chart for the operation of the purchase control feature;

15 Fig. 6 is a process flow chart for verifying a password and limiting a user's number of tries in entering the parental control or purchase password;

Fig. 7 is a process flow chart for determining whether a program has a restricted V-chip classification, and whether access should be allowed;

20 Fig. 8 is a process flow chart for changing the parental control or purchase password;

Fig. 9 is a process flow chart for establishing the parental control or purchase password; and

Fig. 10 is a process flow chart for removing the parental control or purchase password.

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DESCRIPTION OF PREFERRED EMBODIMENTS

The present invention provides a television (TV) schedule system with capability for controlling access to TV programs. Fig. 1 illustrates a preferred embodiment of TV system 1 in which the invention may be utilized. As shown,
30 system 1 includes a distribution center 10 and multiple receiving locations. Distribution center 10 compiles data for a data-stream. In a preferred embodiment, this data-stream is broadcast to receiving locations 16, 18, 20, and 22. Several methods are available for broadcasting the data-stream from distribution center 10 to

receiving locations 16-22. For example, satellite 15 may broadcast this data-stream within the vertical blanking interval (VBI) of a television channel (e.g., PBS) or a dedicated channel to receiving locations 16, 18, 20, and 22. Alternatively, the data may be broadcast out of band, i.e., using non channel specific mechanisms. In

5 another embodiment, the data-stream is provided to receiving locations 16, 18, 20, and 22 via transmission line 13. Transmission line 13 may be, for example, optical fiber, coax cable, telephone line, or the like. In yet another embodiment, peripheral devices, which are located within the receiving locations, receive the data-stream from, for example, a local service provider 40. Service provider 40 receives the
10 data-stream from distribution center 10 via line 17, and broadcasts the data-stream to the receiving peripheral devices via satellite 15 (or another satellite), or via lines 19 and 13. The receiving peripheral devices may be televisions 30, televisions 34, VCRs 32, VCRs 36, and/or set-top boxes 38. In still further embodiments, PCTVs may be utilized, or the data-stream may be provided to a personal computer for use
15 with the computer and/or more of the above devices.

In the preferred embodiment, information in the data-stream includes TV schedule information. Software located within the peripheral devices utilize the schedule information provided in the data-stream to generate a TV schedule guide. The software is stored on a computer-readable storage medium 42 such as a ROM,
20 RAM, disk, or other storage device. If the TV schedule guide is in a grid format, for example, the available channels may be listed on the "y" axis and various times may be listed on the "x" axis. The user may tune to a program within the TV schedule guide by highlighting the program within the guide, and selecting the program. The user may also select one or more desired programs which are listed
25 in the TV schedule guide for automatic, unattended recording. For more information on how the TV schedule system displays information, and its tuning and automatic recording capabilities, see U.S. Patent No. B1 4,706,121 and U.S. Patent No. 5,151,789. Both these patents, like the present patent application, are assigned to StarSight Telecast, Inc., and are hereby incorporated by reference in their
30 entirety for all purposes.

The system further has the capability of preventing viewers from tuning to or viewing one or more TV programs. TV programs may be blocked by channel, rating, content, and/or time. If the user turns on the TV during a locked time, or

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tunes to a channel with a show that contains the locked rating or content/V-chip classification (for example), the television schedule system mutes the audio and displays a solid blue screen over the TV screen. A pop-up will appear asking for the parental password. The solid blue screen will disappear, and mute will be disabled when the correct password is entered.

Fig. 2A shows a preferred embodiment of pop-up 52 shown to a user if a password has not been established, and the user selects parental control from main menu 50. The various menus and pop-ups of the system may be shown as partial screens overlaying underlying full screens, or they may be shown as full screens. As shown, the user is asked to create a parental password by pressing a SELECT key. The SELECT key may also be the ENTER key, and may be on a user input device, or it may be located on the TV schedule guide and entered by directing a cursor to a screen button. If the SELECT key is on the TV schedule guide, a user may highlight it on the guide and input it by pressing an enter key, or any key that functions as an enter key on the user input device. Other keys that may be located on the user input device or the TV schedule guide include the CANCEL key, the REC key, and the EXIT key. Up, down, left and right arrow keys are preferably included to allow a user to navigate and make selections within the pop-up menus. However, any key combinations which allow a user to navigate within the pop-up menus may be used. The parental password may be established from main menu 50 by striking the SELECT key.

Fig. 2B shows a preferred embodiment of parental control menu 54 shown to a user when a parental password has been established, from main menu 50, and the user has entered the correct password. The user may lock TV programs by channel, by rating and/or content, or by time. If the user desires, for example, to lock by time, the user may move the cursor to the "Lock by Time" location and inputs the SELECT key. Alternatively, if programs have been locked, the user may unlock all programs that have been locked.

Fig. 2C is a preferred embodiment of pop-up 56 shown when the user selects the "lock by channel feature." In the preferred embodiment, pop-up 56 includes a list of all channels available to the user. If the user has more channels than will fit in pop-up 56, indicators or scroll bars will be shown at corners of the pop-up instructing the user to move further right or further down to display more

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automatically locked. Since the show contents are not listed in order of severity, locking one content does not automatically lock any others.

The user may also lock specified time periods to prevent TV viewing during those times. The user may further specify the frequency of the lock, e.g., for a single day, for Monday through Friday only, weekends only, or for every day of the week. Fig. 2E shows pop-up 62, which requests user input for the time period during which TV viewing should be prevented. As shown, the user may specify the time to begin locking (the default time is 2:30pm), the time to end locking (the default time is 5pm), and the frequency of the lock (the default frequency is for a single day). In the situation where the user has set these values before, the system remembers the values and displays them when pop-up 62 is shown.

If TV viewing is attempted during a locked period, the system will mute the audio, and display a blue screen over video. A pop-up will appear asking for the parental password. When the correct password is entered, the solid blue screen will disappear, and audio will be re-enabled. If a lock is placed on a time period during which there are programs scheduled for recording, a pop-up will appear warning the user of the conflict. If the user ignores the pop-up, it will time out in three seconds, the channel will be locked, and the recording will occur without the requirement of a password as it was set before the lock was enabled. However, all future recordings scheduled during the locked period will require a password.

Fig. 2F shows a preferred embodiment of pop-up 64 shown to a user if a purchase password has not been established, and the user selects the "Set IPPV Spending limits" feature from control viewing menu 66. IPPV stands for impulse pay-per-view, and refers to PPV programs which are purchased via a user input device, for example, a remote control. It is different from traditional PPV programs which require the user to call the program provider on a phone to purchase the program. The user may establish the purchase password, from main menu 50, by inputting the SELECT key either by pressing the key on the user input device, or selecting it on the TV schedule guide. Fig. 2G shows a preferred embodiment of pop-up 68 shown to a user if a purchase password has been established, and the user selects the "Set IPPV Spending limits" feature from control viewing menu 66. In this case, the user would simply enter the purchase password

Hence, if the user tunes off the locked channel, and then tunes back, the user must re-enter the password to view the locked channel.

To access individual locked programs from the guide, the user may select whichever locked program the user wishes to view by highlighting it on the guide, and inputting the SELECT key. A password pop-up will appear. If the user enters the correct password, the system tunes to the channel with the desired program. The user may also input the SELECT key for more than 1 second, and a pop-up will appear asking the user whether to tune to or record the locked program. When the user has made a selection, the password pop-up will appear and the user may enter the password. After the correct password has been entered, the system will either tune to or record the locked program. Instead of inputting the SELECT key and selecting the record option on the pop-up, the user may also highlight a locked program and input the REC key to request recording of the program. Recording will proceed when the user has supplied the correct password.

Fig. 3 illustrates a process flow chart for determining whether a user could tune to a program. In preferred embodiments, the various processes described herein operate under software control, such software being stored on a computer readable storage medium. In a preferred embodiment, the system has checked whether a parental password is necessary at step 100. At step 102 the system determines whether the user has supplied the correct parental password. If the correct parental password has been entered, the process will check whether the program is a free event at step 104. A free event is a non pay-per-view event. If the event is free, the system will tune to the program at step 110. If the event is not free, the system will request that the user enter the purchase password at step 106. At step 108, the password entered is verified. If the password is correct, the system will tune to the program at step 110. For both verifying steps 102 and 108, if incorrect passwords are supplied, the system will not tune to the program requested.

Fig. 4 illustrates a process flow chart for the operation of the parental control feature. When a user turns on the TV, or tunes to a program or channel, the system checks at step 150 whether a parental password is needed before the program(s) will be shown. If a parental password exists, a step 152 of the system checks whether a BOX lock has been set. A BOX lock is essentially a special

TIME lock as it keeps the TV locked for 24 hours a day, everyday. If a BOX lock exists, a step 154 displays a pop-up informing the viewer that a password is necessary before the viewer may watch TV, and a step 172 requests that the user enters the parental password. When the user supplies the correct password, the user may tune to the program, schedule an auto-tune, or schedule a recording of the program at step 168.

If a BOX lock has not been set, the system checks for channel locks at step 156. If none exists, a step 158 checks for a TIME lock. If a TIME lock exists, a step 170 checks whether the current time is within the range of the restricted times. The user is asked to supply the parental password at step 172 if the user is trying to watch TV at a restricted time. Similarly, if a channel lock exists, and the user is trying to tune to a locked channel, the user would be asked to supply the password at step 172. If the user is watching TV at an unrestricted time, the user may proceed to step 168 and may tune to the program, record the program and the like.

If no TIME lock has been set, a step 160 checks for a rating/MPAA lock, as the ratings correspond to those set by Motion Pictures of America Association. If a rating lock has been set, a step 164 determines whether the program has a restricted rating. If so, the user is asked to supply the parental password at step 172. On the other hand, if there is no rating lock, a step 162 checks for a content/ATTRIBUTE lock. The system checks at step 166 whether the program contains restricted content, and if so, the user is asked to supply the parental password at step 172. A step 176 further checks whether the program has a V-chip classification if the program does not contain restricted content. If so, a step 178 (details shown in Fig. 7) determines whether the user is trying to gain access to a program with restricted V-chip classifications.

Fig. 5, which describes step 106 in greater detail, illustrates a process flow chart for the operation of the purchase control feature. When a user tunes to a program, a step 200 checks whether a purchase password has been established. If so, a step 204 checks whether the limit has been exceeded. Step 172 requests for the purchase password if the limit has been exceeded; if not, the system proceeds with the buying process at step 208. If step 200 determines that a purchase

V-chip classification is to first tune to the channel to access the data. For example, the user may be watching channel 9, and desires to tune to channel 3. Referring to Fig. 7, if the system determines that the program on channel 3 has V-chip classification, a step 300 saves the video and audio volume information of channel 9. The system determines at step 302 whether the user is changing channels from the TV screen or from within guide. If the user is changing channels from the TV screen, a step 304 puts a blue screen over the TV screen.

Alternatively, where the user is changing channels from within the guide, a step 306 applies a blue border around the guide to block out parts of the screen that are not covered by the guide. At step 308, the system mutes the audio so the user may not hear the program. A step 310 tunes to the requested channel, which is channel 3 in this example, and a step 312 reads the V-chip data from the video stream of the channel. A step 314 determines whether the V-chip classification is a restricted classification. If not, the user may tune to the program on channel 3. However if the program has a restricted V-chip classification, the user is asked to supply the parental password at step 172. A step 316 checks that the user has supplied the correct parental password, if so, a step 318 restores the audio volume of the channel (in this case, channel 3). Depending on whether the user was changing channels while within the TV screen or the guide, either step 324 will remove the blue screen put on by step 304, or a step 322 will clear the guide and the blue border applied by step 306. If access was not verified at step 316, audio remains muted, and the blue screen or the blue border and the guide remains on the screen. The user may, however, attempt to access other channels/programs, which will be shown if they are unrestricted.

In another embodiment, the system need not first tune to the channel to access V-chip data. Since V-chip rating data may be included in the data stream, and received in a similar manner as data regarding program title, description, and the like, the system may receive the V-chip rating data in advance, and store the data in a database. In this embodiment, the system may apply parental control without having to first tune to the channel to access V-chip data, as the system may simply retrieve the data from the database. Referring to the Fig. 7 example, the system may determine, while the user is still within channel 9, whether the program on channel 3 has V-chip classification by retrieving V-chip data information

regarding the channel 3 program from the database. After retrieving this information, if the program has V-chip classification, the system may determine whether the V-chip classification is a restricted classification. If so, the parental password is requested, if not, the system tunes to the channel 3 program. Hence, this embodiment eliminates the need for the system to mute the audio and put up a blue screen or a blue border around the guide, as the system need not first tune to the channel.

Fig. 8 illustrates a process flow chart for changing the parental control or purchase password. A step 350 requests for the password, and a step 352 receives the user password input. A step 354 checks whether the password is in proper form, if not, a step 356 displays an illegal password pop-up, and the user has an unlimited number of times to re-enter a proper password at step 352. When the password entered is in proper form, a step 358 verifies that the password is in fact the correct password. A step 360 keeps count of the number of times an incorrect password is entered. As shown by steps 360 and 362, the user is given three attempts to enter a correct password. If after three attempts, the password entered is still incorrect, a step 364 displays a "Too Many Attempts" pop-up. The user has to wait fifteen minutes before the system will allow any further password input attempts, as steps 366 and 368 set the flag and start the fifteen minute restriction. As mentioned, the user preferably may not circumvent the fifteen minute wait by disconnecting the system from the power supply.

The user is allowed to change the old password and enter a new password at step 370 if the user supplied the correct password at step 352. A step 372 ensures that the new password is in proper form, if not, a step 374 displays an illegal password pop-up, and the user has an unlimited number of times to re-enter a proper new password at step 370. If the new password entered is in proper form, the user is requested to re-enter the new password at step 376 to confirm the new password entered is indeed the password desired. At step 378, the system compares the password entered at step 370 with the password entered at step 376. If the two passwords are different, the user is asked to re-enter the new password again at step 376 to confirm the new password entered is the password desired, and step 378 again compares the passwords entered.

proceed, and a step 458 checks whether the password is in proper form. If not, a step 460 displays an illegal password pop-up, and the user has an unlimited number of times to re-enter a proper password at step 456. If the password entered is in proper form, a step 462 verifies that the password is in fact the correct password.

- 5 A step 464 keeps count of the number of times an incorrect password is entered.

As shown by steps 466, 460 and 456, the user is given three attempts to enter a correct password. After three attempts, if the password entered is still incorrect, step 468 displays a "Too Many Attempts" pop-up. The user has to wait fifteen minutes before the system will allow any further password input attempts, as
10 steps 470 and 472 set the flag and start the fifteen minute restriction. As mentioned, the user preferably may not circumvent the fifteen minute wait by disconnecting the system from the power supply. The user is allowed to remove the password at step 474 if the user supplied the correct password at step 462.

- 15 The above description is illustrative and not restrictive. Variations of the invention will become apparent to those skilled in the art upon review of this disclosure. The scope of the invention should, therefore, be determined not with reference to the above description, but instead should be determined with reference to the appended claims along with their full scope of equivalents.

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WHAT IS CLAIMED IS:

1. A method of exercising access control over television programs comprising the steps of:
 - storing a first password;
 - entering a criterion for blocking a television program from being viewed;
 - displaying a plurality of television program listings on a screen;
 - selecting one of the displayed listings for viewing or recording;
 - requesting a viewer to input a password if the selected program meets the blocking criterion; and
 - unblocking the selected program that meets the blocking criterion so it can be viewed or recorded if the viewer inputs a password that matches the first password responsive to the request.
2. The method of claim 1, in which the step of entering a criterion comprises: displaying on the screen a list of criteria; and selecting the criterion to enter from the list of criteria.
3. The method of claim 1, in which the step of entering a criterion comprises: displaying on the screen a prompt to the viewer to enter a password; displaying on the screen a list of criteria if the viewer inputs a password that matches the first password responsive to the prompt; selecting the criterion to enter from the list of criteria; removing the list of criteria from the screen after the criterion has been entered; and preventing selection of another criterion until a matching password is input.
4. The method of claim 1, in which the step of entering a criterion enters a program rating.
5. The method of claim 1, in which the step of entering a criterion enters a channel identification.
6. The method of claim 5, further comprising the step of displaying a lock symbol next to the channel identification in the program listings.
7. The method of claim 1, in which the step of entering a criterion enters a time period.

1 8. The method of claim 1, in which the step of entering a criterion enters a spending limit for pay-per-view programs.

5 9. The method of claim 1, further comprising the step of tuning to the selected program for viewing or recording if the selected program does not meet the blocking criterion.

 10. The method of claim 1, in which the unblocking step comprises the step of unblocking all of the programs.

10 11. The method of claim 1, in which the step of unblocking the selected program comprises verifying the password and preventing the viewer from entering the password for a predetermined period of time if the password was entered incorrectly for a predetermined number of attempts.

15 12. A parental control system comprising:
 a display screen;
 an input device for entering a first password and a criterion for blocking television programs from being viewed;
 a display processor for displaying a plurality of television program listings on the
20 screen;
 a pointing device for selecting one of the displayed listings for viewing or recording;
 a pop up window for prompting a viewer to enter a second password if the selected program meets the blocking criterion; and
25 a processor for unblocking the selected program that meets the blocking criterion so it can be viewed or recorded if the viewer enters a second password that matches the first password.

30 13. The system of claim 12, in which the display processor displays on the screen a list of criteria if the viewer enters a password that matches the first password and processes a selected criterion from the list of criteria.

35 14. The system of claim 12, in which the display processor displays on the screen a list of criteria; and the processor processes a selected criterion from the list of criteria and prevents selection of another criterion until a matching password is entered.

 15. The system of claim 12, in which the input device enters a program rating as a criterion.

1 16. The system of claim 12, in which the input device enters a channel identification as a criterion.

5 17. The system of claim 16, in which the display processor further displays a lock symbol next to the channel identification in the program listings.

 18. The system of claim 12, in which the input device enters a time period as a criterion.

10 19. The system of claim 12, in which the input device enters a spending limit for pay-per-view programs as a criterion.

 20. The system of claim 12, in which the processor verifies the password and prevents the viewer from entering the password for a predetermined period of time if the password was entered incorrectly for a predetermined number of attempts.

15 21. An interactive program guide including a parental control system comprising:
 a display screen;
 a memory for storing a first password;
20 an input device for entering a criterion for blocking television programs from being viewed;
 means for displaying a plurality of television program listings on a screen;
 means for selecting one of the displayed listings for viewing or recording;
 means for requesting a viewer to input a password if the selected program meets
25 the blocking criterion; and
 means for unblocking the selected program that meets the blocking criterion so it can be viewed or recorded if the viewer inputs a password that matches the first password responsive to the request.

30 22. The guide of claim 21, in which the input device enters a program rating as a criterion.

 23. The guide of claim 21, in which the input device enters a channel identification as a criterion.

35 24. The guide of claim 16, in which the display processor further displays a lock symbol next to the channel identification in the program listings.

1 25. The guide of claim 21, in which the input device enters a time period as a criterion.

 26. The guide of claim 21, in which the input device enters a spending limit for pay-
per-view programs as a criterion.

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TELEVISION SCHEDULE SYSTEM WITH ACCESS CONTROL

ABSTRACT OF THE DISCLOSURE

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The present invention is directed to a television schedule system with a user interface which allows a user to control access to television programs by time, rating, content, and/or channel. Furthermore, the user may set a limit on pay-per-view (PPV) spending to limit the purchase of PPV programs.

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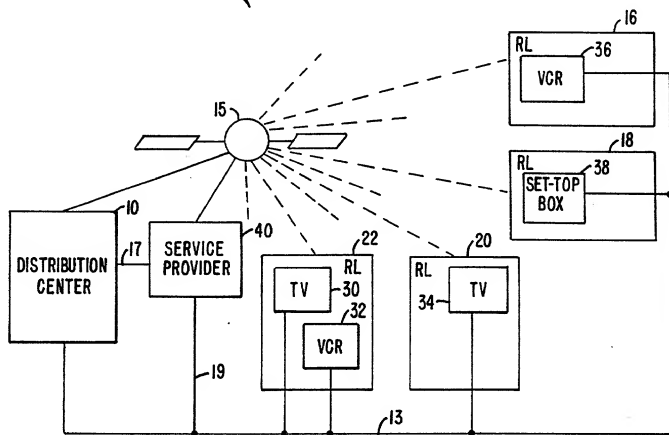


FIG. 1.

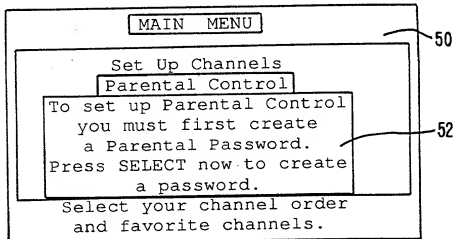


FIG. 2A.

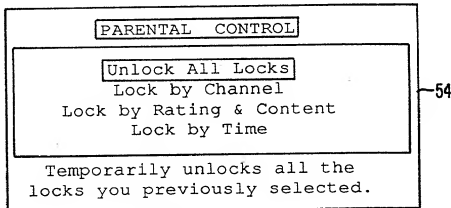


FIG. 2B.

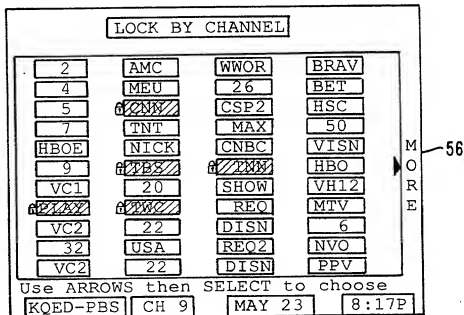


FIG. 2C.

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LOCK BY RATING & CONTENT

RATING	CONTENT
G	Profanity
PG	Nudity
PG13	Violence
R	Adult Situations
NC17	Adult Themes
X	Adult Language
NR	

Press SELECT to lock or unlock rating or content. Use ARROWS to move. Press EXIT when done.

FIG. 2D.

LOCK BY TIME

On - Off

Lock at:

2:30PM

Unlock at:

5:00PM

Lock Status:

Every Day

Press <> to change time.
Use Δ∇ to go to next item.
Press EXIT when done.

FIG. 2E.

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Control TV Viewing 66

For Spending Limits to be effective, you must first create a purchase password. To set up your purchase password press SELECT now. 64

Set IPPV Spending Limits

Set limits on Impulse Pay-Per-View purchasing.

FIG. 2F.

Control TV Viewing 66

Please enter your purchase password. 68

Press SELECT.

If you make a mistake press CANCEL.

Set IPPV Spending Limits

Set limits on Impulse Pay-Per-View purchasing.

FIG. 2G.

SET IPPV SPENDING LIMIT

Limit IPPV spending to:

◀ \$16.00 ▶ 70

Once this limit has been met your password will be needed to purchase additional shows.

Press ◀▶ to change amount.

Press EXIT when done or CANCEL to clear amount.

FIG. 2H.

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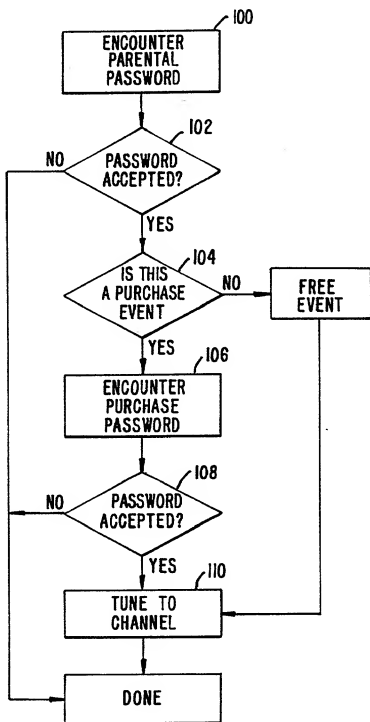


FIG. 3.

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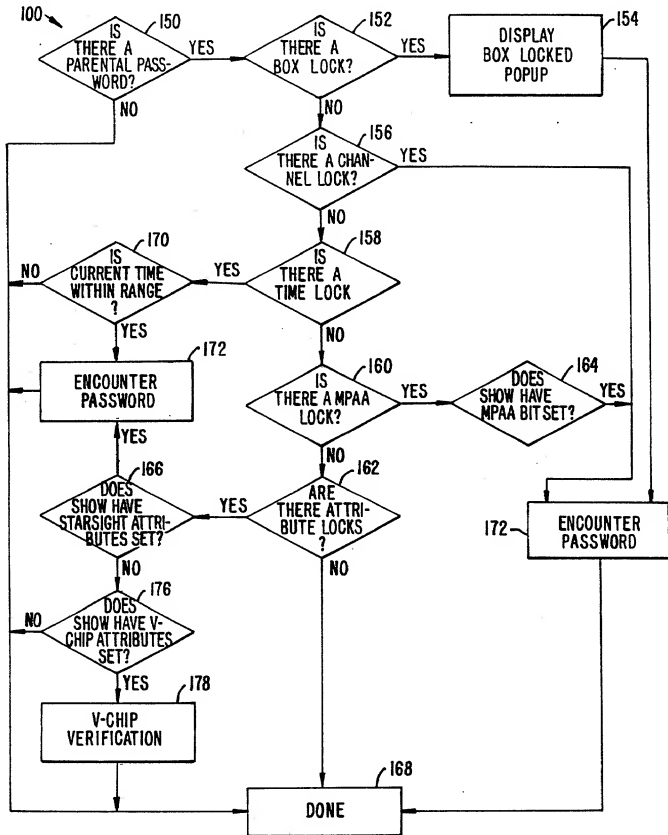


FIG. 4.

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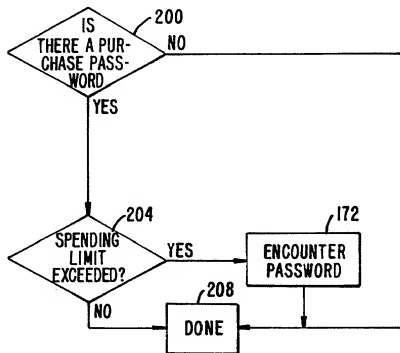


FIG. 5.

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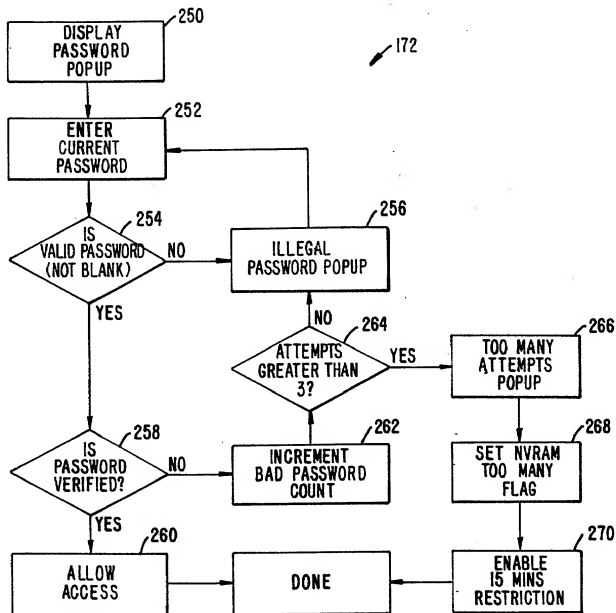
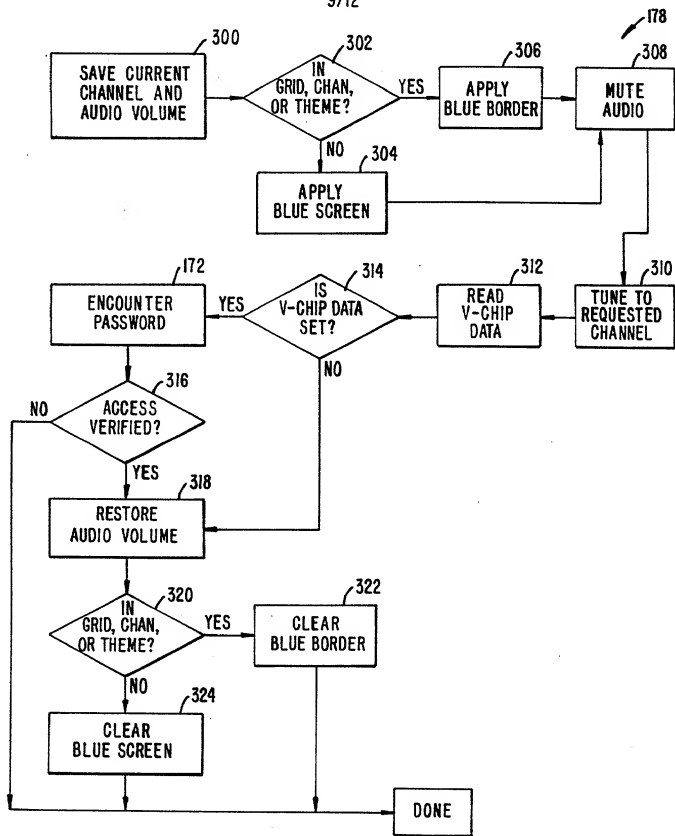


FIG. 6.

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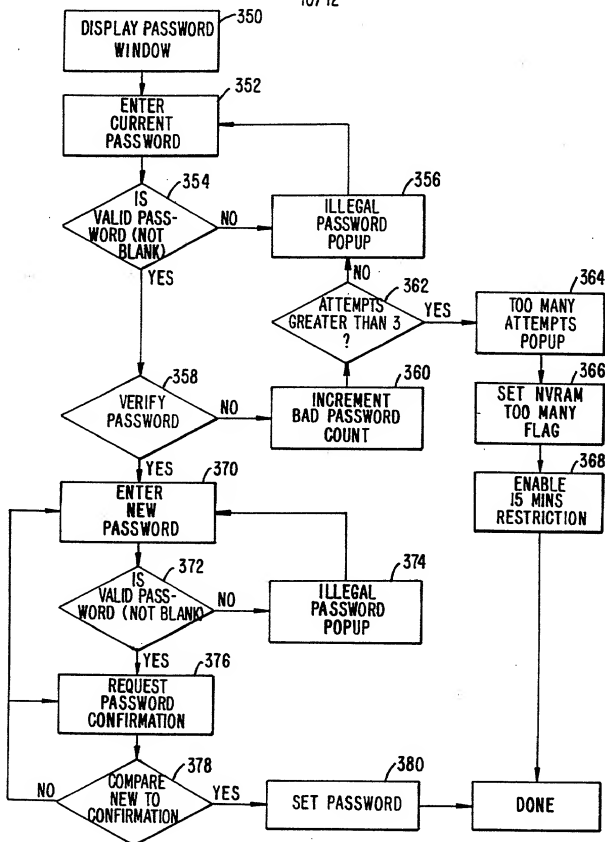


FIG. 8.

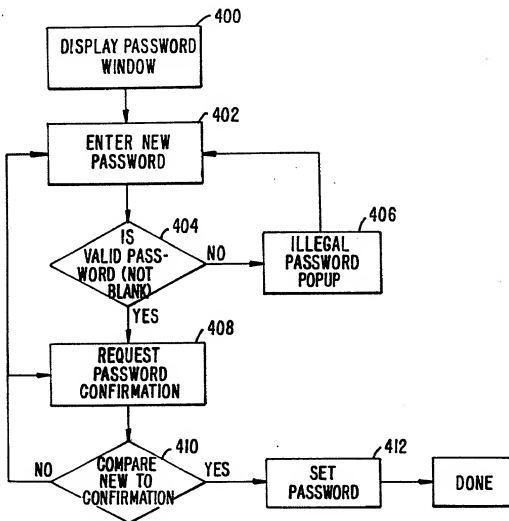


FIG. 9.

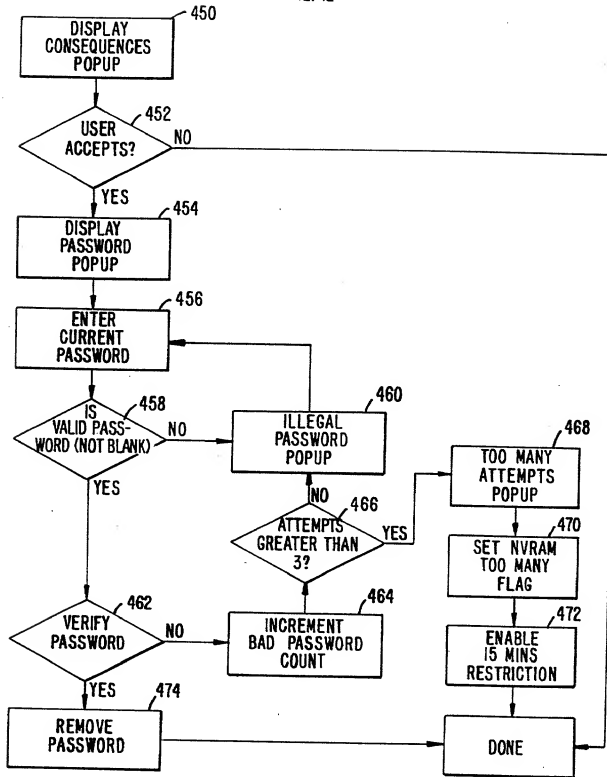


FIG. 10.

DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I declare that:

My residence, post office address and citizenship are as stated below next to my name; I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **TELEVISION SCHEDULE SYSTEM WITH ACCESS CONTROL**, the specification of which _____ is attached hereto or ☒ was filed on May 29, 1996 as Application No. 08/654,997 and was amended on _____ (if applicable).

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56. I claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Country	Application No.	Date of Filing	Priority Claimed Under 35 USC 119
			Yes _____ No _____
			Yes _____ No _____

I hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below:

Application No.	Filing Date

I claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Application No.	Date of Filing	Status
		____ Patented ____ Pending ____ Abandoned
		____ Patented ____ Pending ____ Abandoned


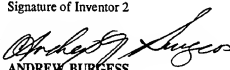
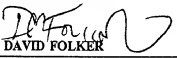
POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Vernon A. Norviel, Reg. No. 32,483
 Alice L. Wong, Reg. No. 39,449
 David G. Beck, Reg. No. 37,776
 John T. Raffle, Reg. No. 38,585

Send Correspondence to: Vernon A. Norviel TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, 8th Floor San Francisco, CA 94111-3834	Direct Telephone Calls to: (Name, Reg. No., Telephone No.) Name: Alice L. Wong Reg. No. 39,449 Telephone: 415-326-2400
--	--

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Residence & Citizenship	City San Jose	State/Foreign Country California	Country of Citizenship United States of America	
Post Office Address	Post Office Address 115 Biddleford Court	City San Jose	State/Country California	Zip Code 95139
Full Name of Inventor 3	Last Name FOLKER	First Name DAVID	Middle Name or Initial	
Residence & Citizenship	City Fremont	State/Foreign Country California	Country of Citizenship United States of America	
Post Office Address	Post Office Address 39505 Gallaudet Drive, Apt. 362	City Fremont	State/Country California	Zip Code 94538

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signature of Inventor 1  MARCY CASEMENT	Signature of Inventor 2  ANDREW BURGESS	Signature of Inventor 3  DAVID FOLKER
Date 8/1/96	Date 8/6/96	Date 8-1-96

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

This paper is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" under 37 CFR § 1.10 Mailing Label No. EL521382989US

Signature _____

Applicant : Marcy Casement, et al.
Application No. : Unknown
Filed : Herewith
Title : TELEVISION SCHEDULE SYSTEM WITH ACCESS CONTROL
Grp./Div. : Unknown
Examiner : Unknown
Docket No. : 40059/RET/S787

SUBSTITUTION OF ATTORNEY AND CHANGE OF ADDRESS

BOX PATENT APPLICATION
Commissioner of Patents and Trademarks
Washington, D.C. 20231

Post Office Box 7068
Pasadena, CA 91109-7068
August 8, 2000

Commissioner:

This letter is to request that the undersigned attorney be made of record for the above-identified patent application. A copy of the Substitution of Attorney from the parent case, Serial No. 08/654,997, was filed in the Patent Office with the parent application on June 30, 1999, a copy of which is enclosed.

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

Bv

Raymond R. Tabandeh
Reg. No. 43,945
626/795-9900

Enclosures: Copy of Substitution of Attorney

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Marcy Casement, et al.
 Application No. : 08/654,997
 Filed : May 29, 1996
 Title : TELEVISION SCHEDULE SYSTEM WITH ACCESS CONTROL

Grp./Div. : 2713
 Examiner : A. Rau

Docket No. : 32533/LTR

SUBSTITUTION OF ATTORNEY BY ASSIGNEE

Commissioner of Patents and Trademarks
 Washington, D.C. 20231

Commissioner:

StarSight Telecast, Incorporated, assignee of the entire interest in and to the above-identified U.S. patent application under an Assignment recorded in the U.S. Patent and Trademark Office on August 15, 1996, at Reel 8110, Frame(s) 0831, hereby revokes all previous Powers of Attorney and appoints:

R. W. Johnston	(17,968)	Vincent G. Gioia	(19,959)	Syed A. Hasan	(41,057)
D. Bruce Prout	(20,958)	Edward R. Schwartz	(31,135)	Hazim H. Ansari	(40,896)
Hayden A. Camey	(22,653)	John D. Carpenter	(34,133)	Samir B. Amaly	(40,898)
Richard J. Ward, Jr.	(24,187)	David A. Plumley	(37,208)	Robert D. Rowlett	(41,279)
Russell R. Palmer, Jr.	(22,994)	Wesley W. Monroe	(39,778)	Kathleen M. Olster	(42,052)
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Richard D. Seibel	(22,134)	Constantine Marantidis	(39,759)	Molly A. Holman	(40,022)
Walter G. Maxwell	(25,355)	John W. Eldredge	(37,613)	Lucinda Grace Auciello	(42,270)
William P. Christie	(29,371)	Yar R. Chaikovsky	(39,625)		
David A. Dillard	(30,831)	Gregory S. Lampert	(35,561)		
Thomas J. Daly	(32,213)	Craig A. Gelfound	(41,032)		

all members or associates of or of counsel to the firm CHRISTIE, PARKER & HALE, LLP, telephone (626) 795-9900, as principal attorneys with power to appoint associate attorneys, to prosecute this application and any subsequent application based on the disclosure of this application, and to transact all business in the Patent and Trademark Office connected with this application and any subsequent application.

Application No. 08/654,997

The authority under this Power of Attorney of each person named above shall automatically terminate and be revoked upon such person ceasing to be a member or associate of or of counsel to that law firm.

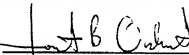
Please address all correspondence to **CHRISTIE, PARKER & HALE, LLP**, P.O. Box 7068, Pasadena, California 91109-7068.

STARSIGHT TELECAST, INCORPORATED

Date

6/16/98

By



Jonathan B. Orlick
VP Intellectual Property & Licensing

LTR/crb

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